

MOOD STATES AND WORKING ALLIANCE

UNIVERSITY OF MINNESOTA

This is to certify that I have examined this copy of a Plan B Project by

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EXPERIMENTAL MANIPULATION OF MOOD STATES ON JUDGEMENTS OF THE  
WORKING ALLIANCE AND ALLIANCE RUPTURES

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### **Dedication**

I would like to dedicate my Plan B to my wonderful parents because without your support I would never have been able to pursue my dreams. I would also like to dedicate this to my partner Jake. Your patience, kindness, and love have not gone unnoticed. I am forever grateful for the sacrifices that you have made for me and for my education. This thesis would not be possible without you.

### **Abstract**

The working alliance is a key component in the therapeutic process, regardless of the theoretical orientation, and is often linked to successful client outcomes. Though alliance is often assumed to lead to outcome, evidence of a causal direction of the alliance-outcome relationship remains ambiguous. It remains possible that the correlation represents the influence of outcome on perceptions of the alliance. Given that mood is known to influence other judgments and perceptions, it is possible that clients' post-session mood might contribute to alliance ratings. The aim of this research was to test this alternative hypothesis that outcome may lead to alliance perceptions by using mood states as a proxy for client outcome. Clients ( $N = 177$ ) were randomly assigned to one of two conditions: (a) negative mood induction or (b) positive mood induction to examine the impact of mood on their ratings of the alliance and alliance-related constructs. There were no statistically significant differences between mood conditions. Clients were not more likely to recall experiencing an alliance rupture depending on the mood condition, nor was an experienced rupture perceived as more intense or more poorly resolved in the negative mood condition. These findings do not support the alternative hypothesis that mood (a proxy for outcome) influences alliance perceptions. This could indicate that mood does not influence alliance perceptions or that clients are able to correct for the effect of mood on these judgments. Future research might replicate this study in other settings, client populations, or with specific types of therapies.

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## **Experimental Manipulation of Mood States on Judgements of the Working Alliance and Alliance Ruptures**

Since the turn of the century, psychotherapists have worked to ameliorate the suffering of individuals with psychological disorders and distress. In 1952, Hans Eysenck published a seminal paper critiquing the scant research evidence supporting effectiveness of therapeutic practice at the time emphasizing that most of the research had employed weak evaluative designs. Based on the state of the evidence at the time Eysenck (1952) concluded that psychotherapy could not be recommended. Following Eysenck's paper an abundance of randomized controlled trials evaluated psychotherapy. Two particularly important pieces of research were meta-analyses by Smith & Glass (1977) and Smith et al. (1980). They analyzed the results from 375 and 475 studies, respectively, and found convincing evidence for the efficacy of psychotherapy, with an overall effect size of  $d = 0.85$ . More recent meta-analyses and reviews have also shown that the efficacy of therapy has medium to large effect sizes, hovering around  $d = 0.75$  (e.g., Grissom, 1996; Lambert, 2013) meaning that therapy is advantageous in alleviating their distress. This conclusion remains when comparing therapy to a control group, treatment as usual, placebo control conditions, and is even seen to be superior to medications in some cases (e.g., Lipsey & Wilson, 1993; Robinson et al., 1990). The strength of this research evidence is good news for the many individuals who attend mental health therapy or counseling at some point in their lives; for example, studies have estimated that approximately 50% of United States households have at least one member seeking mental health treatment (Chamberlin, 2014).

For these therapeutic encounters to be successful, mental health counseling and psychotherapy training often emphasizes the importance of therapists developing a strong

relationship with clients (Sommers-Flanagan & Sommers-Flanagan, 2016), due to its association with client improvement (Crits-Christoph et al., 2013). In fact, the relationship between client and therapist has been emphasized since the beginning of modern psychotherapy. More than a hundred years ago, the founder of modern psychotherapy, Sigmund Freud, stated that:

It remains the first aim of the treatment to attach him [the patient] to it and to the person of the doctor. To ensure this, nothing need be done but to give him time. If one exhibits a serious interest in him, carefully clears away the resistances that crop up at the beginning and avoids making certain mistakes, he will of himself form such an attachment. (Freud, 1912, pg. 100).

Freud felt that rapport building, and the therapeutic relationship were central components of the therapy process. His idea of transference—when the client transfers patterns of behavior with others onto their therapist—was later adapted and evolved to become a separate and distinct concept, the working alliance (Greenson, 1965). Despite its roots in the psychodynamic perspective, all modern theoretical approaches view the working alliance as an important component of successful therapy (Sommers-Flanagan & Sommers-Flanagan, 2016).

### **Alliance Definition**

The *alliance*, sometimes referred to as the therapeutic alliance, working alliance, or helping alliance, is a pantheoretical psychological construct used to describe the relationship between a therapist and client (Doran, 2016). The term *working alliance* was introduced by Ralph R. Greenson (1965) to describe the client and therapist's collaborative efforts in the therapeutic environment. It differs from Freud's transference neurosis because it is used for all non-neurotic, healthy relationships between therapists and clients. Alliance is conceptualized as a positive and necessary part of treatment.



Though there is no consensus on the operational definition of alliance, many have accepted Bordin's 1979 definition of alliance. Bordin's definition specifies that the alliance is made up of three components: agreement on therapeutic goals, agreement on the means of achieving the therapeutic goals (i.e., tasks), and the bond between the therapist and client (Bordin, 1979; Hovarth, 2006). This definition is supported by the Working Alliance Inventory's bilevel factor structure, which includes a primary factor of General Alliance and a tri-part secondary factor, which includes bond, goals, and tasks as the factors (Tracey & Kokotovic, 1989).

Another important concept is alliance *ruptures*. As with any relationship, misunderstandings and frustration can occur during a therapy session. According to the literature ruptures occur "fairly frequently" (Safran et al., 2002). However, it is important to acknowledge that therapists more often report the occurrence of a rupture. Therapists estimated that they occur in 43% of sessions, whereas clients reported them in only 19% of sessions (Safran et al., 2011). When a therapist and client experience an argument, disagreement, or misunderstanding during therapy, it is referred to as a rupture in the alliance (Eubanks et al., 2018) which can include either confrontation or withdrawal by the client (Eubanks-Carter et al., 2015). During a confrontation rupture, clients may become loud, argumentative, or even walk out of the session. In withdrawal rupture, the patient tends to disengage from the therapy process by becoming very quiet, changing the topic, or becoming overly compliant with the therapist's recommendations. Both types of ruptures involve clients expressing that the interpersonal therapy dialogue has resulted in pain or misunderstanding by the therapist, which clients will express in different ways.

## **Measurement**

The working alliance can be quantified using a variety of measures, which can be completed by the client, therapist, or an observer (Fluckiger, 2018). Some of the most commonly used measures of alliance include the California Psychotherapy Alliance Scale (CALPAS), Helping Alliance Questionnaire (HAQ), and the Working Alliance Inventory (WAI). Of these three, the WAI was the most utilized outcome measure used in studies conducted from 2011 to 2017 (Fluckiger et al., 2018) and is available in both long and short form (Doran, 2016). Quantitative measures for alliance ruptures are in their infancy, as researchers have only recently started to develop ways to measure ruptures for research purposes; this includes a series of questions developed by Muran et al. in 1992. Historically however, ruptures have been measured qualitatively, by transcribing therapy sessions and coding for ruptures and resolutions.

## **Outcome**

The working alliance is one of the most highly researched therapeutic processes (Fluckiger et al., 2018), perhaps due to its apparent relevance for therapy outcomes. Typically, therapeutic *outcome* refers to the status of the client with regard to psychological distress, though it can also refer to other patterns such as specific problematic behaviors or symptoms (e.g., binge episodes). The source of the outcome data might include client self-report, observed behavior and therapist evaluation. Outcome refers to the status of the client at the end of the treatment as well as the client's ongoing status on a session-to-session basis (Ogles, 2013). There is no one operational definition of outcome, as it is dependent on the research studies' areas of focus. For example, in an intervention designed to decrease cocaine usage the outcome might be whether someone's cocaine usage decreased, whereas outcomes for obsessive-compulsive treatment might include the frequency of maladaptive behaviors and thoughts. However, the most commonly utilized measure of outcome in research is client self-reported subjective distress

(McLeod, 2003; Ogles, 2013; Smith et al., 1980), which measure the severity of subjective psychological discomfort and symptoms (Sunderland et al., 2019). Subjective distress is an individual's perceived psychological pain and/or mental discomfort and, of importance for the current study, include a client's mood state.

### **Alliance and Outcome**

The findings of several meta-analytic reviews demonstrate a well-established, positive relationship between alliance and outcome (e.g.,  $r = .28$ ,  $d = 0.58$ ), meaning that when the alliance is rated more favorably, clients improve more (e.g., Del Re et al., 2012; Fluckiger et al., 2012; Fluckiger et al., 2018; Horvath, 2001; Martin et al., 2000). Although the exact effect size varies between studies, the alliance-outcome correlation remains relatively consistent regardless of the type of alliance measure (e.g., Helping Alliance Questionnaire), outcome measure used (e.g., Beck Depression Inventory), as well as client characteristics (e.g., diagnosis), and treatment approaches (e.g., cognitive behavioral; Fluckiger et al., 2018). This alliance-outcome relationship is demonstrated through different associative designs. For example, cross-sectional studies have demonstrated a correlation between session alliance and outcome (e.g., Barber et al., 2000; Crits-Christoph et al., 2011). In addition, longitudinal evidence is sometimes cited; one such study demonstrated that when alliance ratings were positive during the first few weeks of either cognitive behavioral analysis of psychotherapy (CBASP) or brief supportive psychotherapy (BSP), clients with chronic depression tended to have lower subsequent subjective distress ratings (Arnow et al., 2013). Likewise, session-to-session changes in alliance predict subsequent session-to-session subjective distress changes (e.g., Crits-Christoph et al., 2011; Falkenstrom et al., 2016). Though, on average, alliance is positively correlated with outcome, some

heterogeneity is observed with correlations as strong as  $r = 0.69$  and some studies failed to find this relationship (e.g.,  $r = -0.08$ ; Fluckier, 2018; Hendriksen, 2014).

In addition to the well-established alliance-outcome relationship, researchers now regard alliance ruptures as important to outcomes. When a rupture occurs, it can weaken the relationship if steps are not taken to repair the damage and as such, unrepaired ruptures are thought to be detrimental to therapy outcomes (e.g., Muran et al., 2009). In sessions where ruptures were noted, clients experienced subsequent symptom distress (Rubel et al., 2018). Ruptures have at least a moderate relationship to therapeutic outcome ( $r = 0.29$ ; Eubanks et al., 2018), and rupture repair seemed to re-engage clients in therapy (Bartholomew et al., 2017) and is associated with treatment outcome ( $d = 0.62$ ; Eubanks et al., 2018).

### **State-Like vs. Trait-Like Alliance**

There are substantial variations in alliance ratings. Some of the variance in alliance ratings can be accounted for by relatively stable factors (i.e., “trait-like”; Zilcha-Mano, 2017). For example, some evidence suggests that some therapists are not only better at forming alliances but that the differences in alliance formation across therapists also predict client outcomes (Baldwin et al., 2007; Crits- Christoph et al., 2009; Marcus et al., 2009; Zuroff et al., 2010), though other studies have failed to observe this pattern (Huppert et al., 2014; Xu & Tracey, 2015; Zilcha-Mano & Errázuriz, 2015). Clients are also thought to demonstrate trait-like alliance patterns with their alliance ratings being more similar session-to-session than in comparison to alliance ratings made by other clients (Zilcha-Mano, 2017), perhaps because some clients are more equipped to develop or perceive a positive therapeutic relationship than others.

Importantly, however, some of the variations in alliance ratings are seen as fluctuations week-to-week by a particular client. This variation in alliance ratings may be viewed as a state-like alliance (Zilcha-Mano, 2017) and accounts for some of the variability in outcomes (e.g., Crits-Cristoph et al., 2011; Falkenström et al., 2013). When clients displayed state-like improvements in alliance from session to session it predicted symptom reduction (i.e., outcome; Falkenström et al., 2013). The aim of the current research is to further understand the state-like alliance-outcome relationship.

### **Causality**

Though the correlation between alliance and outcome is clear, the causal direction of this relationship remains unknown. Though some studies have demonstrated that alliance precedes outcome (e.g., Arnow et al., 2013, Crits-Cristoph et al., 2011; Falkenström et al., 2016), other research shows the reverse, with subjective symptom distress change (outcome) appearing to contribute to the alliance or perceptions of the alliance (e.g., Barber, 2009; DeRubeis et al., 2005). Likewise, after controlling for medications and prior symptom change, alliance was no longer a significant predictor of symptom change in one study (Strunk et al., 2012). This raises questions about the directionality of the alliance-outcome relationship.

To establish causality, a researcher must demonstrate (a) a relationship between the variables, (b) temporal precedence for the causal factor, and (c) that the effect is not the result of confounding variables (e.g., Kite & Whitley, 2018). Although the first requirement of association is well established for alliance and outcome, the second requirement of time precedence has mixed support, and the third requirement is difficult to ascertain. Ordinarily, conditions for establishing causality are simultaneously achieved through an experimental design. For example, researchers could systematically alter the quality of the therapeutic alliance and then measure

subsequent outcomes to determine if changes in alliance are causing changes in client outcomes. For ethical reasons, clinicians cannot manipulate the quality of the alliance that a client receives to be poor or intentionally induce ruptures. This presents a challenge for researchers attempting to understand the nature of the alliance-outcome relationship. Despite the challenges, researchers have been able to utilize alliance-focused training (AFT) enhanced treatments as a means of experimentally testing the relationship (Eubanks-Carter et al., 2015). In AFT practitioners are taught ways to create stronger working alliances and repair ruptures more effectively and it is intended to provide an enhanced alliance experience in therapy (Eubanks-Carter et al., 2015). However, research has shown no significant difference in effectiveness when AFT is compared to other treatment modalities (Muran et al., 2005). Although the research seemed to suggest a reduced dropout rate in comparison to a dynamic therapy (Muran et al., 2005), it has failed to show that an increased alliance experience leads to significantly better outcomes than other therapies.

Given that attempts to establish causality have been mixed, difficult to execute, and modest thus far, one might explore other avenues for understanding the alliance-outcome relationship. It is typically assumed that alliance contributes to outcome, but the possibility remains that the opposite may be true. If it is the case that outcome informs perceptions of the alliance, there may be a variety of explanations for researchers to explore. For one, as a client's symptoms improve they may be more capable of engaging with the therapist and the therapy process. Therefore, alliance levels would rise as interaction and conversation improves. Clients with negative mood symptoms may also interact with their therapists differently and more negatively than those without mood symptoms, possibly making it more difficult to develop a strong, positive working alliance. Another reason might be that if the client's symptomology

improves the client may attribute the change to the therapist doing the “right things” and rate the alliance more favorably. A third possibility, which is the subject of the current research, is that as a client’s symptoms improve, their mood generally improves as well, which could affect ratings of the working alliance and ruptures.

### **Mood States**

Psychotherapy research often uses subjective distress reduction as a primary measure of client outcomes (Ogles, 2013). Subjective distress might be conceptualized to overlap with the clients’ current mood state, which is the temporary emotions that an individual is feeling. Notably, mood will serve as a proxy for outcome in this study since outcome cannot be directly manipulated.

With few exceptions (e.g., McFarland et al., 2003), negative mood states (e.g., sadness or anger) are shown to prime more negative judgments in general (e.g., Schwarz & Bless, 1991). For example, in one study participants’ judgements of teacher effectiveness based on a brief video were less accurate (compared to ratings of students who actually took classes with the teachers) when the participant was sad (Ambady & Gray, 2002). Likewise, negative mood states affect the way participants rated competence and likability (Forgas, 2011). Furthermore, in prior research, participants have also shown mood-congruent recall (Bower, 1981; Bower, 1991; Clark & Isen, 1982; Forgas et al., 1984). In these studies participants who experienced a negative mood induction condition (e.g., viewing a short film clip to induce a specific emotion, or asked to recall an experience in which they felt either unhappy/depressed or happy/successful) were more likely to recall negative memories of an experience, suggesting that one’s current negative mood biases one to recall more negative memories. There are a variety of emotions that are considered to be part of the negative affect spectrum, but sadness was chosen based on its frequency of use

in mood literature (e.g., Braun-LaTour et al., 2007; Brosse et al., 1999; Forgas & Bower, 1987; Robbins & DeNisi, 1998).

Altogether this research suggests that mood states may bias judgments, evaluation of others, and memory recall, all which could have implications for our understanding of the alliance-outcome relationship. Since client outcome might be conceptualized as including mood states and the alliance ratings are often based on client judgments, the possibility remains that some of the alliance-outcome relationship might be accounted for by mood related biases in judgment and memory. Although not the focus of the current proposal, if such a bias were to be present, it is possible it could take hold in therapist and observer ratings of outcome also as a mood contagion (Joiner & Katz, 1999; Neumann & Strack, 2000; Rempala, 2013) when with client's mood. Put simply, client mood might influence others' ratings of the alliance, inflating or even driving the alliance-outcome relationship. The most basic of questions is whether mood biases alliance ratings.

If the alliance-outcome relationship is artificially inflated by mood states, the emphasis on the alliance in practitioner training and practice may be misplaced. However, no study to date has examined the effect of mood states on clients' therapeutic judgments of the working alliance and alliance ruptures.

### **Research Questions & Hypotheses**

Therefore, the current research examined whether mood affects alliance judgements. The study used an experimental design with participants, all of whom were currently participating in counseling services, being randomly assigned to one of two conditions: (a) negative (sad) mood induction or (b) positive (happy) mood induction to examine the effect of mood on participants'



ratings of their working alliance and alliance ruptures. Based on previous literature, the following research questions and hypotheses were developed:

RQ1: Do mood states influence working alliance ratings?

H1: Participants in the negative mood state condition would report lower ratings of the working alliance, relative to participants in the positive mood state condition. No hypotheses were made regarding differences in effects of mood states for the three components of the working alliance (i.e., bond, goals, and tasks), however, analysis of these components are reported for exploratory reasons.

RQ2: Do mood states affect perceptions of alliance ruptures?

H2: Participants in the negative mood condition would be more likely to report alliance ruptures than clients in the positive mood condition.

H3: For the subset of participants who endorsed ruptures with their current therapist, participants in the negative mood condition would report less-resolved ruptures relative to participants in the positive mood condition.

H4: For the subset of participants who endorsed ruptures with their current therapist, participants in the negative mood condition would report feeling more upset about the ruptures relative to participants in the positive mood condition.

## **Method**

### **Participants**

The study was available to individuals who were aged 18 and older and were recruited using Amazon Mechanical Turk (MTurk). After eliminating individuals who attempted to take the survey multiple times, participants were excluded if they endorsed suicidal thoughts ( $n = 39$ ),

had not had a counseling session within the last 30 days ( $n = 102$ ), failed attention checks ( $n = 18$ ) or had incomplete data ( $n = 3$ ). The final sample consisted of 177 total participants who successfully completed the study, well above the 128 participant threshold suggested by a power analysis assuming 80% power to detect a medium effect ( $d = 0.5$ ).

Of the final participants, 79 identified as males (44.6%), 94 as females (53.1%), 1 individual who selected “prefer not to answer” (0.6%), and 3 who chose “other” (1.7%). Participants ranged in age from 20 to 73 years of age. The sample consisted of individuals from multiple racial and ethnic groups: American Indian or Alaska Native (1.1%), Asian (5.6%), Black or African American (9.0%), Hispanic and/or Latino (3.4%), White (83.6%), “other” (0.6%), and “prefer not to answer” (0.6%).

Participants in this study indicated a variety of reasons for currently receiving mental health services: anxiety (70.6%), depression (58.8%), relationship or family difficulties (27.7%), trauma/grief/loss (27.1%), work or school related stressors (15.3%), substance use (9.6%), physical health-related concerns (6.8%), eating disorder (4%), “something else” (2.8%), and psychotic symptoms (1.7%). According to participants self-report, 40.7% were receiving cognitive behavioral therapy (CBT), 19.2% indicated that they were not sure what type of therapy they were receiving, 16.9% received behavioral therapy, 11.9% indicated cognitive therapy, 4% received psychodynamic therapy, 4% indicated “other”, 1.7% received Humanistic, and 1.7% eclectic. Most recent sessions were most often held virtual/online 65.5% or via telephone 14.1%, though 20.3% had their most recent session in-person, most likely due to the COVID-19 pandemic at the time of data collection. However, most of the sample (71.8%) indicated that they had at one point met with their current therapist in-person (see Table 1 for additional information about the sample).

## Procedures

Participants for this study were recruited from MTurk with an informational message stating that:

This research study, conducted by University of Minnesota Duluth, is for people **currently attending therapy or counseling** for mental health, substance use, or a life stressor and requires computer audio to watch a short video. Headphones are recommended. To participate you must first complete a 2-page screener to determine your eligibility. The eligibility criteria include being at least 18 years old, it has been no more than 30 days since you last attended therapy, and you are not having thoughts about self-harm. During the study you will be asked about your current emotions as well as your personal therapy experiences. During this study you may experience unpleasant or negative emotions, and you may discontinue at any time. You can only participate once. Only participants who successfully complete the study, including passing attention check questions, and submit the correct completion code onto MTurk site will be compensated.

They then clicked a Qualtrics survey link. Participants were asked to read through and sign the consent form (see Appendix B). Next, they were asked about suicidal ideation (“Over the last week I have made plans to end my life”) and approximately how many days it had been since they had their most recent therapy session. Options for the second question ranged from “never” to “more than one year.” Eligible participants were directed to complete the CORE-10 questionnaire as a measure of baseline symptom distress, which included an attention check question (“Snow is hot”). Following that, they answered basic questions about their therapy, such as the type of therapy and the duration (see Appendix D), a demographics questionnaire (see Appendix E), and the Positive and Negative Affect Schedule (PANAS; see Appendix F) to

assess for baseline mood state. After answering these questionnaires, all participants were shown the same instructions:

Next you will watch a video clip which is approximately 4 minutes long. You will need computer audio, and headphones may be preferable. Please pay attention for the entire duration. You will be asked a question about the video afterward. You cannot skip the video or fast forward.

The two experimental conditions included watching either the sad video clip, from the movie *Sophie's Choice* (Braverman, 2005; Sanna, 1999) or the happy video clip, (YouTube compilation video clips of the sitcom *Friends*). Video stimuli was selected because meta-analytic reviews suggest they are the strongest induction approaches (Gerrards-Hesse et al., 1994; Rottenberg et al., 2018; Westermann et al., 1996; Zhang et al., 2014). Each video was approximately 4.25 minutes in length. After watching the video, participants completed an attention check question related to the video that they had just finished watching. Then, they completed the PANAS again to serve as a manipulation check. Finally, the participants completed the Working Alliance Inventory (WAI) and the Rupture Questions (RQ).

On completion of the study, participants were asked about what they believed the study was assessing and provided with a debriefing statement and mental health resources (see Appendix I). Their answers regarding the purpose of the study were recorded as a dichotomous variable.

## **Measures**

### ***Baseline Symptom Distress***

The Clinical Outcomes in Routine Evaluation - Screening Measure (CORE-10) is a 10-item self-report questionnaire on a client's well-being, symptoms, functioning, and risk of harm

to self or others (Evans et al., 2000; see Appendix C). The CORE-10 was added to the study to measure participant distress at the beginning of the study and check for random assignment. It uses a 5-point Likert type format for all questions, ranging from 0 (*not at all*) to 4 (*most or all of the time*). Participants were asked to recall how they have felt in the last week when answering the CORE-10 questions. Some of the questions include: “Unwanted images or memories have been distressing me” and “I have felt panic or terror.” It is a short form derived from the Outcome Measure version of the CORE. The 10 questions address 10 key areas of the CORE: subjective well-being, anxiety, depression, physical well-being, trauma, general functioning, close relationships, social relationships, risk to self, and risk to others (Connell & Barkham, 2007). Two of the items, numbers 2 and 3, are reverse coded. Items were summed for a total score. Internal consistency within this sample was good (Cronbach’s  $\alpha = 0.84$ ).

### ***Demographics***

Participants were asked to complete a demographics questionnaire that asks for their age, gender, race/ethnicity, and completed years of education (see Appendix E). A separate page on Qualtrics contained a questionnaire that asked participants to report how many sessions they had with this therapist, if their last session was in-person or via telehealth, if they had ever met with their therapist in person, the type of therapy they were receiving, and diagnosis or presenting concern.

### ***Mood Measure***

The Positive and Negative Affect Schedule (PANAS) is a 20-item measurement of positive and negative affect experienced in the moment of administration (Watson et al, 1998; see Appendix F). Additionally, the Joviality (8-items) and Sadness (5-items) scales (Watson & Clark, 1994) were added to the pre-video PANAS to make it a 33-item measure. These items

were added to ensure that the major PANAS categories were measuring the sadness and joviality constructs we were targeting with the video stimuli. However, the scores that participants received on the Joy subscale were highly correlated ( $r = .84$ ) with the overall Positive subscale, and the Sadness subscale was strongly correlated ( $r = .74$ ) with the overall Negative subscale. Therefore, just the commonly used Positive and Negative subscales were used for the analyses. Items were rated on a 5-point Likert scale, ranging from 1 (*very slightly or not at all*) to 5 (*extremely*). A participant's responses on the 10-item Positive and Negative Affect scales were summed and could range from 10 to 50. The PANAS is a popular measure for measuring mood state and was selected due to its psychometric strength including the low correlation between the positive and negative affect scales, and demonstrated convergent validity when compared to other measures of mood (Watson et al., 1998). Internal consistency for the Negative, Positive, Sad, and Joy scales within this sample was good (all Cronbach's  $\alpha > 0.9$ ).

### ***Alliance***

The Working Alliance Inventory - Client Short Form (WAI-C) is a 12-item self-report scale used to understand a client's perceptions of the working alliance. The measure provides an overall score as well as three subscales: goal consensus, tasks used to achieve goals, and the bond between therapist and client (Horvath & Greenberg, 1989; see Appendix G). The four highest-loading items in each of the three subscales (Tasks, Bond, Goals) were selected to create the 12-item short form (Tracey & Kokotovic, 1989). Items are rated on a scale from 1 (*never*) to 7 (*always*). The WAI-C contains questions such as: "What I am doing in counseling gives me new ways of looking at my problems" and "We agree on what is important for me to work on" (Tracey & Kokotovic, 1989). The participant's responses were summed for a total score and three subscale scores. Items 4 and 10, both part of the goal scale, are reverse coded. The WAI is

a frequently used measure in alliance research and demonstrates that it is reliably correlated with other alliance self-report measures (Horvath & Greenberg, 1989). The WAI-C is used for measuring alliance and was selected due to its psychometric strength such as high reliability, with Cronbach's alpha ranging from 0.90 to 0.98, which are similar to those in the full-length WAI (Tracey & Kokotovic, 1989). Internal consistency within this sample for the overall WAI was good (Cronbach's  $\alpha = 0.94$ ), as was the Goals, Bond, and Task subscores (Cronbach's  $\alpha = 0.89, 0.91, 0.77$ , respectively).

### ***Rupture***

The Rupture Questions (RQ) are derived from a post-session questionnaire developed for use in research by Muran et al. (1992) and Muran et al. (2009; see Appendix H) a major pioneer of the alliance rupture-repair research. This measure is the only known quantitative measure of alliance ruptures for completion by clients. There are five questions in total with varying formats including dichotomous "yes" or "no" option, 5-point Likert format, and open-ended description. These questions assess rupture presence (yes/no), rupture intensity (1-5 scale), rupture description, degree to which the rupture was resolved (1-5 scale) and provide a resolution description.

## **Results**

### **Preliminary analyses**

Variables were examined for outliers and none were found within this data set. Variables were normally distributed.

### ***Randomization***

Independent samples *t*-test and chi-squared tests revealed that randomization was successful (see Table 1). Specifically, there were no statistically significant baseline differences between groups for CORE distress, baseline PANAS mood scores, and demographics, all *ps* > .1.

### ***Manipulation***

Independent samples *t* tests also suggested that manipulation was successful (see Table 1). There were statistically significant difference between groups for post-test PANAS scores with the positive video condition participants indicating more positive mood than the negative video condition participants,  $d = 0.51$ , and the negative video condition indicating more negative mood than positive video condition,  $d = -1.20$ .

About 10% of the participants guessed the purpose of the study. However, study conclusions did not differ when these 17 participants were excluded. Therefore, the findings presented below included these participants.

### **Main Analyses**

The results of independent sample *t*-test comparisons of alliance ratings between the positive and negative mood conditions are reported in Table 2. As can be seen, there were no statistically significant differences between mood conditions for any of the alliance measures. Clients who were in the negative condition were not more likely to report experiencing a rupture ( $n = 23$ ) than clients in the positive condition ( $n = 23$ ),  $\chi^2(N = 177) = 0.001$ ,  $p = .96$ . Unexpectedly, the positive mood condition reported significantly higher intensity of ruptures than the negative mood condition; however, the effect size for this was negligible.

I considered using the number of sessions and days since their last session as covariates, but chose not to given the number of days since last session was not statistically significantly correlated with any of the alliance measures nor was the amount of sessions, all *ps* > .05.



## Discussion

Within psychotherapy literature, a common assumption is that the alliance-outcome relationship indicates that a good working alliance will contribute to successful client outcomes. However, demonstrating this causal direction has been difficult because of ethical and practical barriers for experimentally manipulating the alliance. Meanwhile, the reverse relationship (i.e., outcome contributes to alliance) has received little research attention. This study successfully experimentally manipulated clients' mood states, as a proxy for a client's therapy outcomes, to examine the impact on their ratings of the working alliance. Contrary to the outcome-alliance hypothesis, clients in the positive and negative mood conditions did not statistically significantly differ in regard to their ratings of the working alliance nor alliance ruptures. Furthermore, the effect sizes ranged from negligible to small. Although previous research suggests that mood states may bias judgments (e.g., Ambady & Gray, 2002; Forgas, 2011; Schwarz & Bless, 1991), the evaluation of others, and memory recall, this bias was not observed for ratings of the working alliance.

One possible reason for these findings is that clients may be able to accurately recall feelings about their therapists in order to rate their experiences, no matter their current mood state. Though the effect of mood states can have on judgements of others is well documented (e.g., Ambady & Gray, 2002; Forgas, 2011; Schwarz & Bless, 1991), the current research may differ from these studies in meaningful ways. For example, in one study (Ambady & Gray, 2002), participant sadness led to lowered accuracy in their judgments of teachers' effectiveness based on their observation of brief video samples of nonverbal behavior from 13 teachers rather than teachers who had actually taught them. Likewise, in another study (Forgas, 2011), negative mood states affected how participants rated another individual's competence and likability, but

again this individual was not personally known to the participant outside of the lab setting. This is significantly different from the methodology in the current study. Clients were asked to rate their therapist, for whom they had established a relationship and likely already formed an opinion of their working relationship. In other words, a change in mood may not impact judgements of individuals when initial impressions have already been formed.

Alternatively, clients may have experienced a biased impression due to their mood but were able to notice bias and correct for it when making their ratings. For example, in a previous study (McFarland et al., 2003) participants were exposed to a negative or positive mood induction (i.e., visualized and described either an unpleasant or pleasant event from the last year) and then asked to either (1) focus on their mood or (2) were distracted from their feelings prior to evaluating two people. In the focused condition, participants were asked to select four mood adjectives from a list to describe their current feelings. In the distracted condition, participants were instructed to complete a cognitive-based task in which they generated shorter words from a list of longer words. The results from this study showed that only participants in the distracted condition revealed a mood-congruency effect in their judgements. In other words, participants who acknowledged their feelings were more likely to avoid the mood-congruence bias.

There were a variety of limitations for this study. The first being that participants were recruited from a crowdsourcing platform. Although there appears to be limited participant differences between an MTurk and clinical or undergraduate samples (Shapiro et al. 2013; Tompkins, 2019), it can nonetheless not be known how individuals who sign up to participate on these sites may differ from those who do not. Likewise, most psychotherapy research asks clients in a mental health clinic or hospital setting to complete measures shortly before or after a session. This study used a time span of 30 days for recruitment so it is possible clients may not

have recalled the details of their session(s) as well. However, a correlation between the time since their last therapy session and their alliance ratings was not observed in this sample, perhaps suggesting clients were able to recall their sessions similarly, regardless of the amount of days that have passed.

Although the mood manipulation was successful, a second limitation might be that mood was artificially manipulated, and the strength of that manipulation may not represent real world mood states following therapy. The positive mood stimuli, while successful, may not have been strong enough. It was difficult to identify a positive video clip previously tested in the literature, that would not offend a modern audience. Although the selected video clips were pilot tested with a small group of college students, the shift in positive mood was half the effect size of the negative mood effect size between conditions. Past research suggests that negative moods are more influential for biasing judgments (e.g., Forgas, 1987), and there was a substantial effect for negative moods. Nonetheless, the mood manipulation used in this study was designed to be mild, which might not simulate the effects that may be possible from the more intense emotions that might be expected for clients before or after an actual therapy session when they might normally complete an alliance measure. Additionally, it is unknown whether the mood states were maintained throughout the entire time participants completed the measures. Previous studies have also had participants view stimuli and then complete brief rating scales or questionnaires (e.g., Forgas, 2011), often about 10-items long. While the measures used in this study were fairly brief, they were slightly longer than previous studies, so it is possible this was a factor, particularly for the final set of questions on ruptures.

A third limitation is that the study took place during the COVID-19 pandemic and most participants were currently receiving services via telehealth (79.6%). Although recent literature

suggests that the alliance during telehealth (Fluckiger et al., 2018; Jenkins-Guarnieri et al., 2015; Simpson et al., 2015), including during COVID-19 (Aafjes-van Doorn et al., 2020; Dolev-Amit et al., 2020), is comparable to that of in-person therapy sessions, it remains unknown whether the study's results would generalize to in person therapy.

Additional studies are needed to understand the full effect of mood on the working alliance and alliance ruptures. Of course, since one can never prove the null hypothesis, it should be acknowledged that it is possible that mood does bias alliance, but this difference was not detected in this sample. The effect sizes observed in this sample would suggest that difference would be very small. Additional replications of this study's findings would lend confidence to the theory that alliance predicts outcome, rather than outcome predicting perceptions of alliance. To ensure that the results can be generalized to multiple disorders, treatments, and duration of therapy experiences other studies could look at the specific effect of mood on alliance for each of these factors. Finally, future research might explore alternative stimulus materials. The mood literature provides a variety of options that may not be suitable for all audiences, is outdated, or is inaccessible, so some additional development and pilot testing may be needed for new stimulus materials.

Nonetheless, the findings from this study do not support the alternative hypothesis that mood contributes to alliance ratings, perhaps suggesting that the conventional theory that alliance contributes to outcome is more accurate. If this is the case it suggests the popular training and practice focus on alliance may be warranted. Of course, mood is not the only aspect of outcome that could contribute to alliance ratings though. Additional research might examine a multitude of other facets of outcome besides mood. For example, researchers could examine if an improvement in client symptoms, other than mood, results in the client being more capable of

engaging with the therapist and the therapy process. If this were the case, it would suggest the alliance relationship is a byproduct of the improvement process rather than a causal contributor. Another interesting area of research is understanding the “halo effect.” For example, knowledge of symptom improvement might generalize to more favorable ratings on other processes like the therapeutic alliance (Lokhorst & Reich, 2021). Additionally, this study focused on state-alliance, however there could be important patterns having to do with alliance outcome relationships that are at the trait level for both client and therapist.

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**Table 1***Demographic, Clinical, and Experimental Characteristics between Conditions*

Characteristic	Overall Sample ( <i>N</i> = 177)	Positive Cond. ( <i>n</i> = 88)	Negative Cond. ( <i>n</i> = 89)	<i>t</i> or $\chi^2$	<i>p</i>
Demographics					
Gender				2.33 <sup>a</sup>	.507
Female	53.1% (94)	56.8% (50)	49.4% (44)		
Male	44.6% (79)	40.9% (36)	48.3% (43)		
Prefer Not to Answer	0.6% (1)	1.1% (1)	0.0% (0)		
Nonbinary	1.7% (3)	1.1% (1)	2.2% (2)		
Race/Ethnicity				2.12 <sup>b</sup>	.146
American Indian/Alaska Native	1.1% (2)	2.3% (2)	0.0% (0)		
Asian	5.6% (10)	6.8% (6)	4.5% (4)		
Black/African American	9.0% (16)	9.1% (8)	9.0% (8)		
Hispanic/Latino	3.4% (6)	4.5% (4)	2.2% (2)		
White	83.6% (148)	79.5% (70)	87.6% (78)		
Prefer Not to Answer/Other	1.1% (2)	2.3% (2)	0.0% (0/89)		
Age in Years, <i>M</i> ( <i>SD</i> )	36.98 (9.85)	37.35 (10.13)	36.62 (9.59)	0.50	.621
Therapy Characteristics					
Reason for Receiving Services <sup>c</sup>					
Anxiety	70.6% (125)	70.5% (62)	70.8% (63)	0.00	.961
Depression	58.8% (104)	54.5% (48)	62.9% (56)	1.28	.258
Eating Disorder	4.0% (7)	6.8% (6)	1.1% (1)	--	--

Physical Health-Related Concerns	6.8% (12)	8.0% (7)	5.6% (5)	0.38	.536
Psychotic Symptoms	1.7% (3)	2.3% (2)	1.1% (1)	--	--
Relationship or Family Difficulties	27.7% (49)	23.9% (21)	31.5% (28)	1.28	.259
Substance Use	9.6% (17)	6.8% (6)	12.4% (11)	1.57	.211
Trauma, Grief, Loss	27.1% (48)	28.4% (25)	25.8% (23)	0.15	.701
Work or School Related Stressors	15.3% (27)	11.4% (10)	19.1% (17)	2.05	.152
Other	2.8% (5)	3.4% (3)	2.2% (2)	--	--
Theoretical Orientation of Therapy <sup>d</sup>				6.46	.487
Behavioral	16.9% (30)	19.3% (17)	14.6% (13)		
Cognitive	11.9% (21)	11.4% (10)	12.4% (11)		
Cognitive Behavioral	40.7% (72)	35.2% (31)	46.1% (41)		
Eclectic	1.7% (3)	1.1% (1)	2.2% (2)		
Humanistic	1.7% (3)	2.3% (2)	1.1% (1)		
Psychodynamic	4.0% (7)	6.8% (6)	1.1% (1)		
Other	4.0% (7)	3.4% (3)	4.5% (4)		
Not Sure/Unknown	19.2% (34)	20.5% (18)	18.0% (16)		
No. Sessions Attended, <i>M (SD)</i>	16.43 (14.61)	15.09 (13.76)	17.75 (15.36)	-1.21	.094
Method of Delivery <sup>e</sup>				0.15	.930
In-Person	20.3% (36)	19.3% (17)	21.3% (19)		
Telephone	14.1% (25)	14.8% (13)	13.5% (12)		
Virtual/Online	65.5% (116)	65.9% (58)	65.2% (58)		

## Mood and Symptom Distress

CORE-10	13.75 (7.01)	13.15 (6.95)	14.35 (7.06)	-1.14	.256
Pre-Stimulus Positive Mood, <i>M (SD)</i>	2.72 (0.84)	2.73 (0.83)	2.70 (0.83)	0.23	.816
Pre-Stimulus Negative Mood, <i>M (SD)</i>	1.69 (0.78)	1.70 (0.82)	1.68 (0.73)	0.24	.811
Post-Stimulus Positive Mood, <i>M (SD)</i>	2.44 (0.84)	2.65 (0.94)	2.23 (0.68)	3.42	<.001
Post-Stimulus Negative Mood, <i>M (SD)</i>	1.95 (1.01)	1.43 (0.70)	2.47 (1.01)	-7.97	<.001

---

*Note.*  $N = 177$

<sup>a</sup> Nonbinary and Prefer Not to Answer were not included in the chi square analysis

<sup>b</sup> Due to small subsamples this analysis compared distribution of White versus non-White clients in each condition

<sup>c</sup> Chi-square and p values were not calculated if condition had sample size of <6

<sup>d</sup> Participants indicated which theoretical orientation of therapy they were receiving; information was not verified. The chi-square analysis compared cognitive, behavioral, and cognitive-behavioral versus non-CBT.

<sup>e</sup> Method of delivery for the most recent therapy session

**Table 2**  
*Means for Alliance Measures for Each Mood Condition*

Alliance	Positive		Negative		<i>t</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
WAI Total	5.33	1.01	5.18	0.99	0.95	.34	0.14
WAI Bond	5.24	1.22	5.04	1.16	1.15	.25	0.17
WAI Task	5.28	1.05	5.14	1.22	0.91	.36	0.14
WAI Goal	5.46	1.04	5.38	1.00	0.53	.6	0.08
Intensity	2.87	1.01	2.83	1.03	0.14	.89	0.04
Resolution	3.09	1.41	3.43	1.34	-0.86	.4	-0.25

*Note.* *N*=177

## Appendix A

### Amazon's Mechanical Turk (MTurk) Recruitment Paragraph

This research study, conducted by University of Minnesota Duluth, is for people **currently attending therapy or counseling** for mental health, substance use, or a life stressor and requires computer audio to watch a short video. Headphones are recommended. To participate you must first complete a 2-page screener to determine your eligibility. The eligibility criteria include being at least 18 years old, it has been no more than 30 days since you last attended therapy, and you are not having thoughts about self-harm. During the study you will be asked about your current emotions as well as your personal therapy experiences. During this study you may experience unpleasant or negative emotions, and you may discontinue at any time. You can only participate once. Only participants who successfully complete the study, including passing attention check questions, and submit the correct completion code onto MTurk site will be compensated.

## Appendix B

### Consent Form

Title of Research Study: Experiences of College Students Attending Therapy

#### Investigator Team Contact Information:

For questions about research appointments, the research study, research results, or other concerns, call the study team at:

Investigator Name: Dr. Catherine Reich Investigator Departmental Affiliation: Psychology Phone Number: 218-726-7420 Email Address: cmreich@d.umn.edu	Student Investigator Name: Kelly McKnight Phone Number: 651-315-3673 Email Address: mckni069@d.umn.edu
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Supported By: This research is supported by University of Minnesota Duluth.

#### Key Information About This Research Study

The following is a short summary to help you decide whether or not to be a part of this research study. More detailed information is listed later on in this form.

What is research?

- The goal of research is to learn new things in order to help people in the future. Investigators learn things by following the same plan with a number of participants, so they do not usually make changes to the plan for individual research participants. You, as an individual, may or may not be helped by volunteering for a research study.

Why am I being invited to take part in this research study?

We are asking you to take part in this research study because you are currently participating in mental health therapy or counseling.

What should I know about a research study?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

Why is this research being done?

The purpose of this research is to gather information about clients' experiences in therapy. This line of research could help future students understand what kinds of reactions they can expect in similar situations.

How long will the research last?

We expect that you will be in this research study for 1 hour (60 minutes).

What will I need to do to participate?

You will be asked to complete a set of demographic and background questions, and self-reported mood state measures. You will also be asked to provide information about your therapy experiences. The lab session is expected to last about 60 minutes.

More detailed information about the study procedures can be found under "What happens if I say yes, I want to be in this research?"

Is there any way that being in this study could be bad for me?

Participants may experience negative emotions during this experiment.

**Will being in this study help me in any way?**

There are no benefits to you from your taking part in this research.

What happens if I do not want to be in this research?

All aspects of this study are voluntary. You can leave the research at any time and it will not be held against you.

#### Detailed Information About This Research Study

The following is more detailed information about this study in addition to the information listed above.

How many people will be studied?

We expect about 140 clients will be in this research study.

What happens if I say "Yes, I want to be in this research"?

- You will be asked to complete demographic and background questions.
- You will be asked to complete several self-reported mood state measures at various points during today's session.
- You will be asked to observe a brief video clip. The experimental clip you get will be chosen by chance (similar to flipping a coin). You will not be told which experimental treatment you are getting, however your investigator will know.
- You will be asked to provide information about your therapy experiences.
- The study will occur today only for about 60 minutes, here in this room.
- Not all aspects of the study can be explained at the start as this might skew results but following the completion of the study we will provide additional information about what we are testing.



What happens if I say “Yes”, but I change my mind later?

You can leave the research study at any time and no one will be upset by your decision. If you decide to leave the research study, contact the investigator so that the investigator can debrief you and end the study software. Choosing not to be in this study or to stop being in this study will not result in any penalty to you or loss of benefit to which you are entitled. This means that your choice not to be in this study will not negatively affect your academic standing or your monetary compensation. Data collected to the point of withdrawal will be kept and recorded in the study database.

What are the risks of being in this study? Is there any way being in this study could be bad for me? (Detailed Risks)

- Privacy and confidentiality risks: There is some risk of a data breach involving the information we have about you. We comply with the University’s security standards to secure your information and minimize risks, but there is always a possibility of a data breach.

Will it cost me anything to participate in this research study?

No.

What happens to the information collected for the research?

Results in the form of presentations or publications will be a summary of participant data and will not be identifiable for any one particular student. Your individual responses and performance will not be shared with your therapist nor the University of Minnesota Counseling Center. Efforts will be made to limit the use and disclosure of your personal information, including research study and medical records, to people who have a need to review this information. We cannot promise complete confidentiality. Organizations that may inspect and copy your information include the Institutional Review Board (IRB), the committee that provides ethical and regulatory oversight of research, and other representatives of this institution, including those that have responsibilities for monitoring or ensuring compliance. All data will be stored on password protected computers with encrypted hard drives. We may publish the results of this research. However, we will keep your name and other identifying information confidential.

***Additional sharing of your information for mandatory reporting:***

If we learn that you have plans to harm yourself, we may be required or permitted by law or policy to report this information to authorities under certain circumstances.

Whom do I contact if I have questions, concerns or feedback about my experience?

This research has been reviewed and approved by an IRB within the Human Research Protections Program (HRPP). To share feedback privately with the HRPP about your research

experience, call the Research Participants' Advocate Line at [612-625-1650](tel:612-625-1650) (Toll Free: 1-888-224-8636) or go to [z.umn.edu/participants](http://z.umn.edu/participants). You are encouraged to contact the HRPP if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

Will I have a chance to provide feedback after the study is over?

The HRPP may ask you to complete a survey that asks about your experience as a research participant. You do not have to complete the survey if you do not want to. If you do choose to complete the survey, your responses will be anonymous. If you are not asked to complete a survey, but you would like to share feedback, please contact the study team or the HRPP. See the "Investigator Contact Information" of this form for study team contact information and "Whom do I contact if I have questions, concerns or feedback about my experience?" of this form for HRPP contact information.

Can I be removed from the research?

The person in charge of the research study or the sponsor can remove you from the research study without your approval. Possible reasons for removal include high levels of psychological distress or thoughts of suicide or self-harm.

### **Will I be compensated for my participation?**

If you agree to take part in this research study, we will pay you \$10 for your time and effort.

Your signature documents your permission to take part in this research. You will be provided a copy of this signed document.

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Signature of Participant

---

Date

---

Printed Name of Participant

---

Signature of Person Obtaining Consent

---

Date

---

Printed Name of Person Obtaining Consent

## Appendix C

### Clinical Outcomes in Routine Evaluation - Screening Measure (CORE-10)

#### ***IMPORTANT - PLEASE READ THIS FIRST***

This form has 10 statements about how you have been OVER THE LAST WEEK. Please read each statement and think how often you felt that way last week. Then select the circle which is closest to this.

Over the last week...	Not at all	Only occasionally	Sometimes	Often	Most or all of the time
1. I have felt tense, anxious or nervous.	0	1	2	3	4
2. I have felt I have someone to turn to for support when needed.	4	3	2	1	0
3. I have felt able to cope when things go wrong.	4	3	2	1	0
4. Talking to people has felt too much for me.	0	1	2	3	4
5. Snow is hot.	N/A	N/A	N/A	N/A	N/A
6. I have felt panic or terror.	0	1	2	3	4
7. I have had difficulty getting to sleep or staying asleep.	0	1	2	3	4
8. I have felt despairing or hopeless.	0	1	2	3	4
9. I have felt unhappy.	0	1	2	3	4
10. Unwanted images or memories have been distressing me.	0	1	2	3	4

***Thank you for your time in completing this questionnaire. Please press the “Next” button...***

## Appendix D

### Therapy Information

1. Approximately how many sessions have you had with your current therapist? If you aren't sure, give your best guess.
  - a. Dropdown menu from 1 to 50+
2. Was your most recent therapy session in-person or telehealth?
  - a. In-person session
  - b. Telephone session
  - c. Virtual/online session
3. Have you ever met with your current therapist in-person (i.e., not electronically delivered and in the same room as the person)?
  - a. Yes
  - b. No
4. To the best of your knowledge, what type of therapy are you currently receiving?
  - a. Cognitive Behavioral Therapy (CBT)
  - b. Cognitive Therapy (CT)
  - c. Behavioral Therapy (BT)
  - d. Psychodynamic
  - e. Humanistic
  - f. Eclectic
  - g. Other, please specify:
  - h. Not Sure
5. Which of the following best describes why you are currently attending therapy? (please check all that apply)
  - a. Depression or mood difficulties
  - b. Anxiety
  - c. Trauma, grief or loss
  - d. Substance use
  - e. Eating disorder
  - f. Work or school-related stressors
  - g. Relationship or family difficulties
  - h. Physical health-related concerns
  - i. Psychotic symptoms
  - j. Something else

## Appendix E

### Demographics Questionnaire

1. What is your age)?
  - a. Dropdown from 18 to 99
2. What is your gender?
  - a. Male
  - b. Female
  - c. Other, please specify:
  - d. Prefer Not to Answer
3. What is your ethnicity? (Check all that apply)
  - a. American Indian or Alaska Native
  - b. Asian
  - c. Black or African American
  - d. Hispanic and/or Latino
  - e. Native Hawaiian or Other Pacific Islander
  - f. White
  - g. Other
  - h. Prefer not to answer
4. What is the highest level of education you have completed?
  - a. Some high school
  - b. High school or equivalent
  - c. Some college/university
  - d. Completed college/university
  - e. Post graduate training/degree
  - f. Other
  - g. Prefer not to answer

## Appendix F

### Positive and Negative Affect Schedule (PANAS)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then select the circle which is closest to this. **Indicate to what extent you feel this way right now, that is, at the present moment.**

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
Interested					
Distressed					
Excited					
Upset					
Strong					
Guilty					
Scared					
Hostile					
Enthusiastic					
Proud					
Irritable					
Alert					
Ashamed					
Inspired					
Nervous					
Determined					
Attentive					
Jittery					
Active					
Afraid					

## Appendix G

### Working Alliance Inventory – Client Short Form (WAI-C)

On the following pages there are sentences that describe some of the different ways a person might think or feel about his or her therapist (counselor).

For each statement there is a seven-point scale:

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

If the statement describes the way you always feel (or think) circle the number 7; if it never applies to you circle the number 1. Use the numbers in between to describe the variations between these extremes.

This questionnaire is **CONFIDENTIAL**; neither your therapist nor the agency will see your answers. Your therapist will not receive any information about your participation in this study nor any information you provide. Please work quickly, your first impressions are the ones we would like to see.

(PLEASE DON'T FORGET TO RESPOND TO EVERY ITEM.)

	Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always
My therapist and I agree about the things I will need to do in counseling to help improve my situation.							
What I am doing in counseling gives me new ways of looking at my problem.							
I believe my therapist likes me.							
My therapist does not understand what I am trying to accomplish in therapy.							
I am confident in my therapist's ability to help me.							

My therapist and I are working towards mutually agreed upon goals.							
I feel that my therapist appreciates me.							
We agree on what is important for me to work on.							
My therapist and I trust one another.							
My therapist and I have different ideas on what my problems are.							
We have established a good understanding of the kind of changes that would be good for me.							
I believe the way we are working with my problem is correct.							



## Appendix H

### Rupture Questions (RQ)

Please read the questions below and answer as honestly as possible. Your therapist will not see any of your responses, nor will they be told any information about your participation in the study. These questions are referring to any session that you have had with your current therapist.

At any point during your session(s) with your <u>current</u> therapist, have you experienced any tension or problem, any misunderstanding, conflict or disagreement, in your relationship with your therapist? If there is more than once instance please choose the one you remember most.	Yes		No		
If yes, please rate how tense or upset you felt about the problem during the session.	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
Please describe the problem or conflict.	(Blank space for participant to type answer)				
To what degree do you feel this problem was resolved by the end of the session?	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
Please describe the resolution of the problem or conflict.	(Blank space for participant to type answer)				

## Appendix I

### Debriefing Script

Thank you for your participation in our study today. Your responses will help us understand the perceptions of the therapy process. Below please find additional information about the study.

#### IMPORTANT MESSAGE

**Your completion code is: \${e://Field/RANDOMID}**

You **MUST** enter this code on the Mechanical Turk HIT in order to complete the work and receive compensation. Once your survey completion has been confirmed you will receive compensation. We try to approve work as quickly as possible, although sometimes this can take up to 24 hours.

#### About this Research

The purpose of the study today was to examine the effect that moods have on judgements of therapy, such as how you feel about your therapist, the degree to which you agree on your goals, and problems that may occur during the course of therapy. The measures you completed were on the therapeutic alliance. The alliance is a term for the working relationship between the therapist and client. Past research suggests a strong relationship between alliance and therapy outcomes (e.g., Del Re et al., 2012; Fluckiger et al., 2012; Fluckiger et al., 2018; Horvath, 2001; Martin et al., 2000). Typically, it is assumed that therapy is more successful because the client and therapist have a strong alliance and resolve conflicts well together. However, it is possible that feeling better and having a more positive mood could lead to more lenient or positive ratings to the therapist and the therapeutic process (e. g., Schwarz & Bless, 1991). Therefore, it is important to understand whether current mood could influence how a client views therapy. In order to understand the effect of mood, participants in this study watch different emotional video clips. Some participants watched a series of positive emotional scenes from the sitcom Friends whereas others watched a negative emotional scene from the movie Sophie's Choice. This was necessary because we want to know how emotions (such as those brought up in therapy sessions) might influence the way clients rate their therapy experiences.

#### Resources

We appreciate your time in helping us with this research. These topics can be uncomfortable or distressing to some. If you experienced distress while participating in this study, we urge you to utilize the following resources:

- The National Suicide Prevention Lifeline is a free and confidential 24/7 hotline and chat service. The purpose is to provide you with emotional support and resources when you need it most. They are trained to help you find resources in your area as well. The number is 1-800-273-TALK (8255) or click here to chat online. The Veteran's Crisis Line is available via the same service through menu options.
- Alternatively, *if you are at imminent risk of self-harm you can always go to your local emergency room/urgent care*. If you do not have a means to travel to your local emergency room/urgent care, you can call 911 for assistance.
- You may also wish to contact your current mental health provider.

- If you need assistance finding a new service provider, in the area the American Psychological Association has a tool to locate psychologists near you. You can access their website [here](#).
- National Domestic Violence Hotline: 1-800-799-7233 or chat online.
- RAINN National Sexual Assault Hotline: 1-800-656-4673 or chat online.

Thanks again for participating in this study! If you have any additional questions about the research, you may reach the investigators, by mail or email:

Dr. Catherine Reich  
Department of Psychology  
1049 University Drive  
cmreich@d.umn.edu

Kelly McKnight  
Department of Psychology  
1049 University Drive  
mckni069@d.umn.edu

Thank you again for your participation. You will receive credit for the study on Amazon Mechanical Turk within the next 24 hours.

## Appendix J

### Rupture and Repair Statements

Study ID	Rupture Description	Resolution Description
6488587	She insisted I get on medication even after I told her I reacted badly in the past, and I reacted very badly again, which caused serious problems for me. She smirked and was condescending to me when I told her, showing zero concern or empathy.	There was none. We just let it go and resumed the next week without bringing it up again or talking about it.
3103081	We disagree all the time about how I feel	Talked it out
9749825	I felt like she wasn't listening to my reasons for doing things	She apologized for the misunderstanding
6183276	I don't feel tense about what we discuss in the session, but sometimes I feel tense expressing my wishes about our actual therapeutic relationship. Recently, I wanted to change the frequency of therapy and I felt like my therapist would be upset or resistant to this idea. I've had therapists in the past insist on a month of additional therapy when I request to end our therapeutic relationship. I understand why they did it, but it made me feel uncomfortable. I was afraid to have a similar situation occur with my current therapist.	We discussed our next therapeutic steps in our session. I feel like he understood why I was asking to change the frequency. However, after I made the request I feel like he checked out a little bit on our sessions.
5828781	My therapist insisted I look deeper into the issue of my mistrust of people and I resisted.	I eventually reflected and conceded that it might have to do with the fact that I do not trust myself.
947485	We disagreed about how I should feel about a certain event that happened. I was told that I could look at it differently even though I was told by the other individual involved exactly why they did what they did to me and I shared that with my therapist.	It left that no matter what someone else tells me is their reasoning for the attacks that this isn't reality and my interpretation, and theirs, were wrong and the therapist interpretation is correct.
1949945	we disagreed with the best solution for a specific problem	we discussed why I disagreed and worked together to find an alternative solution
5415854	i just felt they didn't understand my unique situation...very long story	I can't go into that much detail I just feel they didn't understand me.

4105207	A disagreement on what my intentions were in a specific situation.	Simply going past it and focusing on something else.
4473157	Thought my choices were wrong	Explained thought process behind choices
8932485	I've missed too many due to health	I have to try harder to know in advance
2896687	I work at a hospital with doctors treating COVID and when I expressed my anxiety about it, she asked how it was any different than the flu.	I explained how it was different from the flu, but then she started talking about how drug trials and such can exaggerate symptoms and problems.
1962300	She felt I should participate in group therapy and I did not feel comfortable with that. She pushed the idea several times even though I told her I did not want to do that.	I told her that was the one thing I would never do and she finally understood I meant it.
8545965	I have occasionally felt defensive of some of my choices and actions, because my therapist tends to not shy away from pointing out inconsistencies or hypocrisy.	My therapist gives me time and opportunities to explain myself, and generally does not press further if she senses I am becoming agitated. I understand that this is all part of a process, and try to stay humble and receptive.
5027869	We disagree on many of the root causes of my issues.	I sometimes disagree with his resolutions because we don't always agree on the causes of my problems.
6397232	they were judging me or so it felt like about something that i had done and it made me mad	i explained again why the issue had happened and they changed their view on it and their response to me
783196	We sometimes disagree on what a problem is, meaning that I don't think some aspect of my life is a problem and she does think it's a problem, or the other way around. We usually agree, but there are times when I think something is working for me, and she disagrees. I'm not sure it's a conflict or a problem, it's part of our process of working together.	We don't always come to a conclusion on an issue by the end of a session, sometimes it takes several sessions or more. Usually, we agree to try different things to test how it works out in daily life, and then we get back together and talk about the results.
4945010	We dont seem to see eye to eye	We moved on and ended the session
3277845	i thought some questions may be related to the video	no much to do

3608021	There have been times when an assumption was made about a situation based on the life experiences of my therapist rather than acknowledging we are from different backgrounds and some aspects of situations are unrelatable for me.	It took some time for me to think about the misunderstanding and how I wanted to phrase my concerns. I wound up writing down my thoughts and read them during a session so we could better understand one another.
5316984	How to resolve my feelings with my parent and how I should find ways to forgive her.	Discussing the problem, and finding ways to include how to balance my emotions through self-reflection and taking medications.
7755672	We disagreed about a personal problem I was having and how to handle it.	After discussing we eventually understood each other's voice viewpoints and came to an acceptable solution.
2353113	I didnt want to meet with her because I guess I didnt want to confront my problems. She encouraged me to meet with her and confront my problems.	She spoke to me about the importance of going through with the sessions
515687	Sometimes when I tell her something she doesn't listen or she thinks I will change my mind.	Usually i tell her the same thing over and over and she figures out I'm not changing my mind.
9621354	I felt that she didn't see or even try to see my side of an argument with my boyfriend.	I kept repeating and explaining and getting more upset, and in the end she said she saw my viewpoint but I was not too convinced.
168618	At the beginning, I felt like my therapist was just trying to listen to me because I paid her and that is all.	She told me that she was there to help me get better and not just for a paycheck.
8207096	I did not agree with something they said about me.	We talked it out and i explained why i felt the way i did. He the explained his point of view and we figured it all out.
4852131	Therepist is a liberl	There never is onw
275187	He thought my pain from my fiancée leaving me was tied to my issues with my mother and our relationship	I expressed my relationship with my mother and we compared it to the relationship with my ex fiancée, finding differences and correlations. He ruled out the parenting issue and focused only on the 5 year long relationship I had with my ex instead.

8741742	I felt that some issues I wanted to work on directly with my family, and therapist wanted to be more involved than I was comfortable with.	Agreed that we would continue to have 1-on-1 sessions without other family members present
2076588	I'm bisexual, which tends to be a awkward subject position and difficult to grasp initially for some.	Just recognition of my actual sexual orientation
6189200	After my accident in 2015 I have a hard time controlling stress and she wanted me to quit my main job due to the high stress environment.	Decided to approach my manager for a transfer to another less stressful team and less hours per week (I was working 60/week and cut a day off to work 50)
2054543	He has told me some hard truths about my parenting that was hard for me to deal with	He helped me work through my feelings of failure and showed me the positives
1854224	I was livid because she did not understand the reason why I was explaining my frustrations. I had lost a family member and provided pertinent details of a situation that she seemed to have overlooked and drew her own conclusion about the events. It was probably the most irritating and disrespectful situation I've had.	I explained multiple times so she could understand but the damage was done. The fact I said something that was either ignored or misinterpreted made me lose some faith and respect for her. I considered her a professional but I realized even professionals still have much to learn.
9494013	It happened when I first started seeing my therapist. It dealt with ways that she thought I should tackle my problem of social anxiety that I was reluctant to accepting because I didn't think these ways would genuinely help me.	I listened to my therapist and the benefits of what she was advising and decided to think deeper about it and realized that what she was advising would help in the long run, even if I was reluctant right now.
7302839	We had a big misunderstanding of who was to blame for my problem and I was being very hostile because I was already upset.	We pushed off the topic and waited to comeback to it at the next session but I had to take notes and reflect on why I thought what I thought.
2943057	She wanted me to reach out to my Dad and I was not willing to do it	We decided that I was not ready
2563331	the problem centered on whether I ought to contact a person who I'd previously had a traumatic encounter with.	I convinced the therapist that I didn't want the memory to be re-lived any more than it already was.
7626215	During the covid lockdowns, there was a period where not much was happening in my personal life, so having sessions every week felt unnecessary. I felt like we started treading on a	We resolved to take a break for a couple weeks and then see each other every two weeks after we resumed our sessions.

	lot of the same topics for a few consecutive weeks, so I eventually got frustrated and told her I wanted to meet less often for a while. She said that consistent meetings are more helpful, but I felt like we weren't making much progress for a while.	
3985785	disagreement over trivial information, scientific in nature and not related to my behavior	I cited a recent source as proof to back up my statement/view. Therapist agreed.
6982096	We hit a bumpy road when discussing my gender identity and how I'd like to be addressed and my pronouns.	Once I explained it to her and the importance of reaffirming language, she backed down and seemed to see things from my perspective.
4670440	NO problem	NO problem
7284314	A significant difference of opinion about many things	There was none
7037394	No	No
9977658	NO	NO
4535118	NONE	NONE